



# Army Energy and Water Campaign Plan for Installations UPDATE

17 August 2005

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# Army Energy Campaign Plan

## Evolving Energy Program

**Army Energy Program historically focused on demand side energy saving initiatives. Future programs need to integrate these and other strategies:**

- ***Utility Privatization***
- ***Energy Security***
- ***Procurement***
- ***Distributed Generation***
- ***Renewables***
- ***Global environment***
- ***Emerging technologies***
- ***Increased emphasis on alternative fuels***
- ***Decreasing natural gas and petroleum resources***



**Army Energy Strategy is comprehensive**



# Army Energy Campaign Plan

## Army Energy Strategy

**The Army Energy Strategy – looks out to 2030, based on five major strategies:**

- ✓ ***Eliminate/Reduce energy waste in existing facilities;***
- ✓ ***Increase energy efficiency in renovation and new construction;***
- ✓ ***Reduce dependence on fossil fuels;***
- ✓ ***Conserve water resources; and***
- ✓ ***Improve energy security.***



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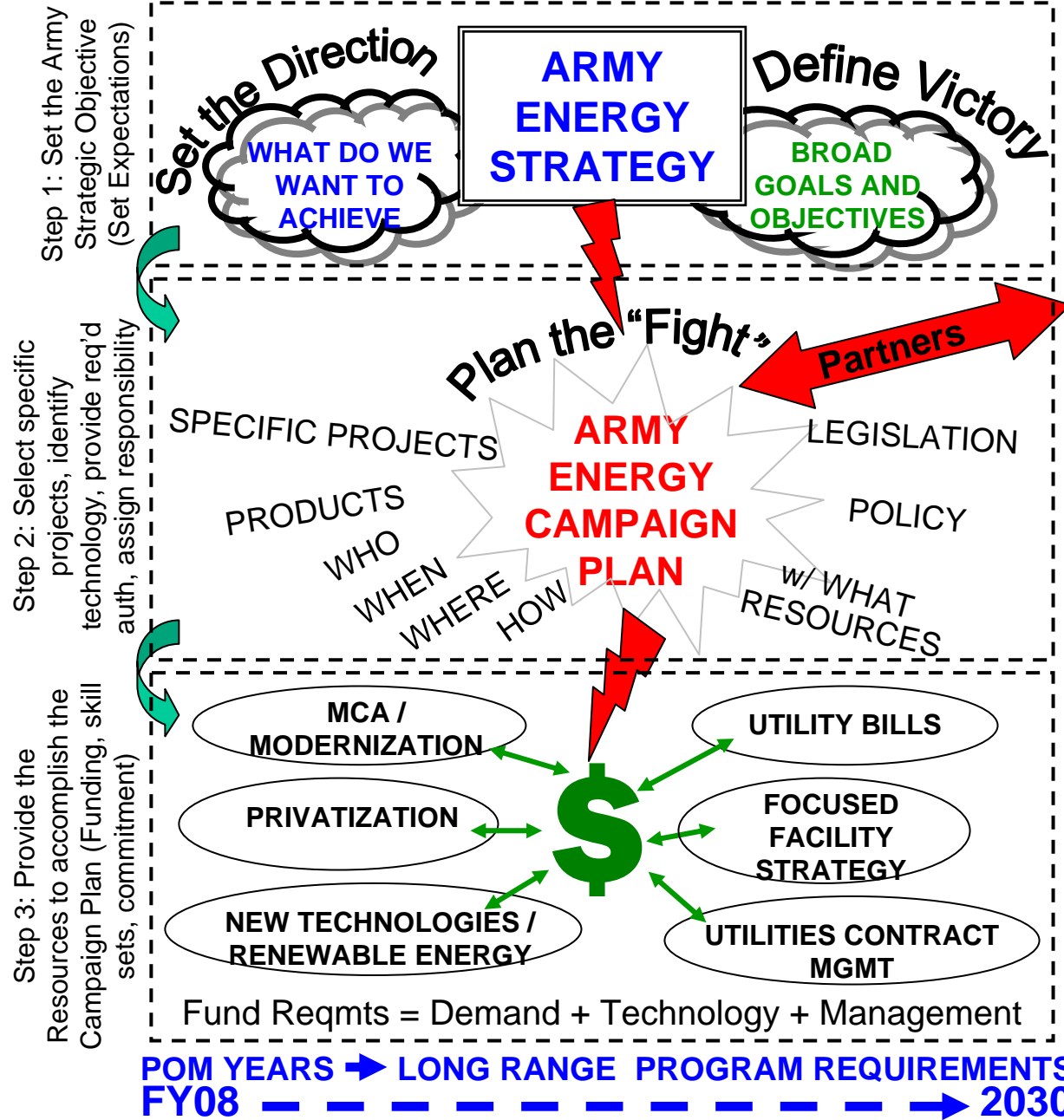
## The Road Map



**The Energy Campaign is the road map for achieving the Army Energy Strategy**

- ✓ ***Provides the way ahead for leveraging policy, programs (resources and other investment opportunities), and projects to meet the Army energy and water goals.***
- ✓ ***Provides detailed plans, identifies measurable objectives and metrics, lead agents and other resources needed to execute the strategy.***
- ✓ ***Provides a supportable year-by-year investment plan, proposes projects and systems, ties in all energy users and policy proponents (e.g., security, privatization, procurement, technology, construction, and environmental concerns).***

***-- And BUY-IN by Senior Army Leadership!***



- ## INVOLVE ALL STAKEHOLDERS
- G-3 / OPMG – Priorities/Security
  - ACA/ASA(ALT) – Acquisition
  - USACE – Power Procurement
  - ABO/ASA(FM) – Resources
  - IMA – Installations
  - MACOMs – Major consumers
  - OSD – Overarching DoD Policy
  - Other Services – Shared solutions, consistent approach
  - DOE – Federal Energy Goals / ESPC / Federal Energy Vision
  - PVT INDUSTRY – Suppliers / Providers / Technology Experts





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## STRATEGY ONE

✓ *Eliminate energy waste in existing facilities;*

*Eliminate/Reduce energy inefficiencies that waste natural and financial resources, and do so in a manner that does not adversely impact comfort and quality of the facilities in which Soldiers, families, civilians and contractors work and live.*



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✓ *Eliminate energy waste in existing facilities*

## *Objectives:*



*Action 1:* *Develop national, regional and installation energy management plans.*

*Action 2:* *Provide trained staff for energy management.*

*Action 3:* *Create an MDEP (Mgt. Decision Pkg.) for energy management.*

*Action 4:* *Create accountability throughout the chain of command.*

*Action 5:* *Develop and implement information and knowledge management systems.*

*Action 6:* *Develop utilities modernization and recapitalization program for 100% of government owned utilities systems.*

*Action 7:* *Establish utilities procurement strategy.*

*Action 8:* *Create funding strategies for energy projects.*

*Action 9:* *Establish incentives.*

*Action 10:* *Establish energy awareness program.*

*Action 11:* *Comply with DOE standards for equipment procurement.*



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## STRATEGY TWO

*✓ Increase energy efficiency in new construction/renovations;*

*Reduce costs by using energy sources and technologies that provide the greatest cost-effectiveness, energy efficiency and support environmental considerations.*





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## ✓ *Increase energy efficiency in new construction/renovations*

### *Objectives:*

- Action 1: Develop energy performance requirements, Btu/ft<sup>2</sup>/yr for new construction, renovations and utility systems for all buildings.*
- Action 2: Develop advanced energy design guidelines for new building designs and energy concept adviser for building retrofits to meet or exceed energy performance requirements.*
- Action 3: Increase energy efficiency in sustainable design of new and major construction.*
- Action 4: Develop a database of energy efficient technologies for new building designs and building retrofits.*
- Action 5: Provide training in the new approach to designing buildings or major renovations.*
- Action 6: Establish an Army Energy Research and Development initiative by maintaining a data base of emerging technologies and developing appropriate application guides.*



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## ✓ *Increase energy efficiency in new construction/renovations*

### *Objectives:*

***Action 7: Increase utility efficiency through management of utility consuming systems.***

***Action 8: Establish an Army utility source evaluation program.***

***Action 9: Insulate installations from impact of fuel price volatility.***

***Action 10: Increase the use of life-cycle-cost effective renewable technologies in construction***

***Action 11: Change policy to allow all monies to be retained at the installation level and to be used for utility projects***

***Action 12: Increase use of alternative financing and available appropriated funds to include performance verification.***

***Action 13: Develop an “Energy Assessment Guide for Energy Managers and ESCOs”***



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## STRATEGY THREE

✓ *Reduce dependence on fossil fuels;*

*Reduce dependence on fossil fuels to minimize increases due to global market conditions and for environmental benefits.*



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## ✓ *Reduce dependence on fossil fuels*

### *Objectives:*

***Action 1: Substitute renewable resources for fossil fuel energy and natural gas purchases when shown to be life-cycle-cost-effective.***

***Action 2: Develop all cost effective on-site renewable power generation consistent with mission and energy security requirements.***

***Action 3: Modernize and sustain central energy systems (CES) to reduce fossil fuel consumption.***

***Action 4: Reduce on-site fossil fuel use for building space heating and hot water.***

***Action 5: Reduce fossil fuel usage in non-tactical vehicles (NTV).***



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## STRATEGY FOUR

*✓ Conserve water resources;*

*Reduce water use to conserve water resources for drinking and domestic purposes.*



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## ✓ *Conserve water resources*

### *Objectives:*

***Action 1: Eliminate potable water use for irrigation or uses that doesn't require potable use.***

***Action 2: Improve water distribution system integrity.***

***Action 3: Increase water efficiency in domestic fixtures.***

***Action 4: Increase use of native plants in landscapes.***

***Action 5: Increase efficiency in process water use (cooling towers, equipment that uses single pass cooling, boiler/steam systems, vehicle wash station, construction).***

***Action 6: Prioritize projects and develop implementation strategies.***

***Action 7: Develop technical standards and training to facility project development and implementation.***

***Action 8: Identify water resources for future demands to meet mission critical needs (and plus ups).***



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## STRATEGY FIVE

*✓ Improve energy security;*

*Provide for the security and reliability of our energy and water systems in order to provide dependable utility service.*



# Army Energy Campaign Plan

## ✓ *Improve energy security*



### *Objectives:*

***Action 1: Determine utility vulnerability risk baseline established for each installation.***

***Action 2: Create energy security plans at all Army installations and updated annually.***

***Action 3: Develop water system vulnerability assessment and response plans for each installation.***

***Action 4: Maintain oversight responsibilities of critical private-industry operations where utilities are or will be privatized.***

***Action 5: Identify costs of mitigating vulnerabilities and budget for implementation.***

***Action 6: Implement installation remedial action plans.***

***Action 7: Diversify the Army's energy portfolio to include: multiple sources of energy, renewable, coal, co-generation, and leverage technologies (to include new developing technologies).***





# Army Energy Campaign Plan

## Campaign Timeline

- ***19 May 05 – Met with industry***
- ***16 Jun 05 – Met with DoD and DOE***
- ***20 Jun 05 – Met with Army Staff, IMA, Regions***
- ***22-23 June 05 – Campaign Plan strategy session (internal)***
- ***12-14 Jul 05 – Campaign Plan assembly workshop***
- ***July 15 – August 12 – Refine Draft version with Stakeholders***
- ***17 Aug 05 – Review with Agencies and Services at Energy 2005***
- ***18-19 Aug 05 – Present Draft Campaign Plan at Army Energy Forum***
- ***30 Sep 05 – Begin formal staffing of Energy Campaign Plan***
- ***Dec 05 - Mar 06 – Assemble first POM IAW Campaign Plan***



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***Thank you for your participation!***

***Way Ahead:***

**<http://hqda-energypolicy.pnl.gov/programs/plan.asp>**